

HELP: 1-888-751-4086 (Tech Support)
1-866-894-0637 (FE)

GSPN

<http://gspn3.samsungcsportal.com>

PLUS ONE

<http://my.plus1solutions.net/clientPortals/samsung>

HOT TIPS

- Power On Problems: (pg. 3)
- Video Problems: (pg. 4)

Service Bulletins

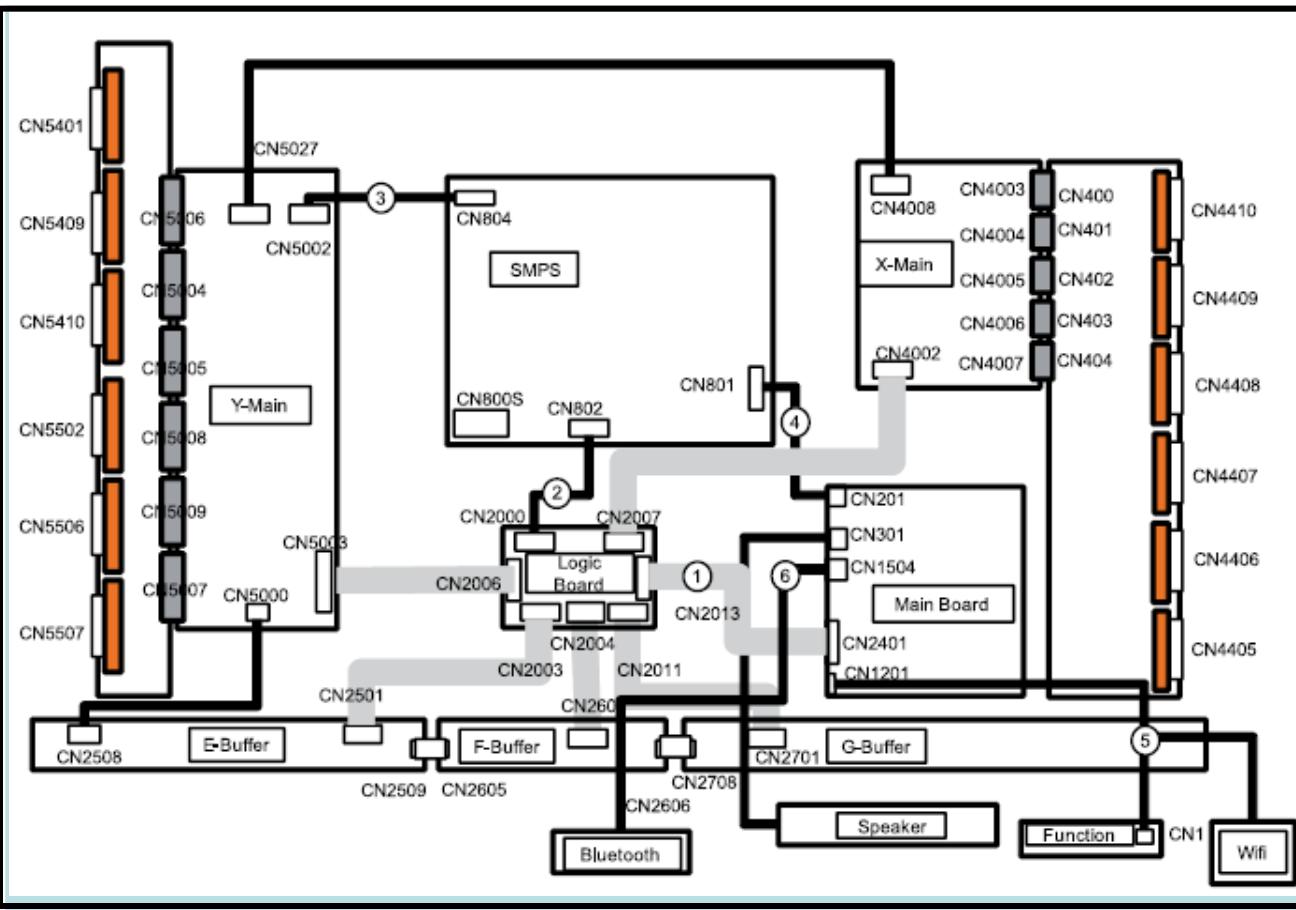
Plasma Screen Peeling Issue -
ASC20110708001

Related Model Code(s): PN59D7000FFXZA /
PN59D8000FFXZA / PN64D8000FFXZA

Please check GSPN for parts update!

Quick Parts List:

| Version | Parts No | Short Description |
|---------|-------------|-------------------|
| ALL | BN44-00447A | Power PCB |
| ALL | BN94-04402U | Main PCB |
| I101 | BN96-16531A | Logic Main PCB |
| ALL | BN96-16532A | Buffer E |
| ALL | BN96-16533A | Buffer F |
| ALL | BN96-16534A | Buffer G |
| ALL | BN96-16535A | X Main |
| ALL | BN96-16536A | Y Main |
| ALL | BN96-16537A | Buffer X |
| ALL | BN96-16538A | Buffer Y Up |
| ALL | BN96-16539A | Buffer Y Down |
| ALL | BN96-17107A | RF module PCB |
| I101 | BN96-18260E | Function & IR PCB |
| Y504 | BN96-20516A | Logic Main PCB |
| Y503 | BN96-20516A | Logic Main PCB |
| I101 | BN96-18201A | Panel |
| Y503 | BN96-20269A | Panel |
| Y504 | BN96-20270A | Panel |
| ALL | BN63-07791A | Bottom Cover |
| ALL | BN96-16787A | Stand Base |
| ALL | BN96-16814A | Front Cover |
| ALL | BN96-16826B | Rear Cover |
| ALL | BN96-16829A | Stand Guide |
| I101 | BN59-01134A | Remote |
| ALL | BN59-01134B | Remote |
| ALL | BN96-18070B | Speaker |
| ALL | BN96-18130H | LVDS Cable |
| ALL | BN96-09872R | Power Cord |



(4) CN801 (SMPS) - CN201 (MAIN)

| Pin No. | Signal |
|---------|--------|
| 1 | PS_ON |
| 2 | STBY |
| 3 | GND |
| 4 | VAMP |
| 5 | GND |
| 6 | GND |
| 7 | D5.3V |
| 8 | D5.3V |
| 9 | GND |
| 10 | 15V |
| 11 | 15V |
| 12 | D5.3V |

(5) CN12001 (MAIN) - FUNCTION/Wi-Fi

| Pin No. | Signal |
|---------|----------|
| 1 | B5V |
| 2 | Wi-Fi_DM |
| 3 | Wi-Fi_DP |
| 4 | GND |
| 5 | N/C |
| 6 | IR |
| 7 | GND |
| 8 | A3.3V |
| 9 | SCL |
| 10 | SDA |
| 11 | FUNC_INT |
| 12 | LED_STB |

Power On Sequence:

1. STBY 5V (CN801, #2, 5v)
2. PS_ON (CN801, #1, 3.3v-0v)
3. VS_ON (CN802, #6, 0-3.3v)
4. Panel should illuminate briefly

(3)

51" only : CN804 (SMPS) - CN5000 (Y-BOARD)

59"/64" only : CN804 (SMPS) - CN5002 (Y-BOARD)

| Pin No. | Signal |
|---------|----------------|
| 1 | V _s |
| 2 | V _s |
| 3 | GND |
| 4 | V _g |
| 5 | GND |
| 6 | V _a |

(4)

51" only : CN802 (SMPS) - CN2002 (LOGIC)

59"/64" only : CN802 (SMPS) - CN2000 (LOGIC)

| Pin No. | Signal |
|---------|--------|
| 1 | D5.3V |
| 2 | D5.3V |
| 3 | GND |
| 4 | B/T_DP |
| 5 | B/T_DM |
| 6 | PS_ON |
| 7 | VS_ON |

(6) CN1504 (MAIN) - B/T

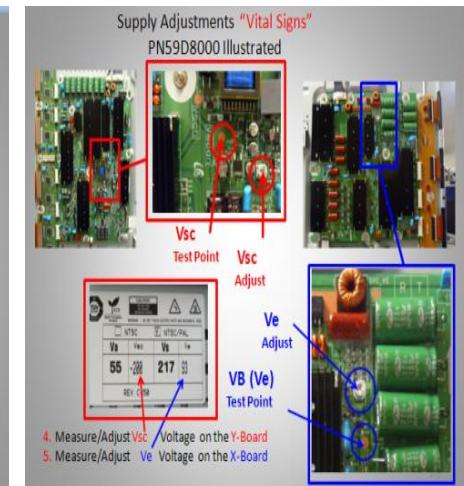
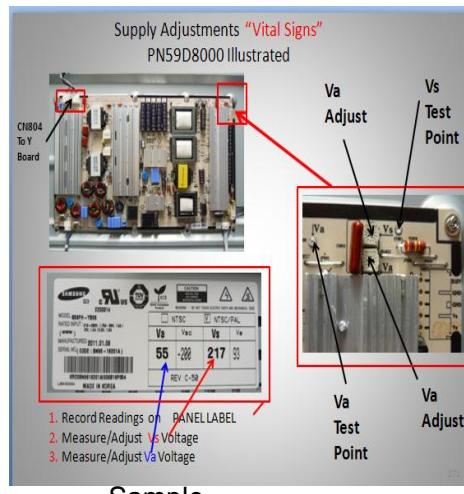
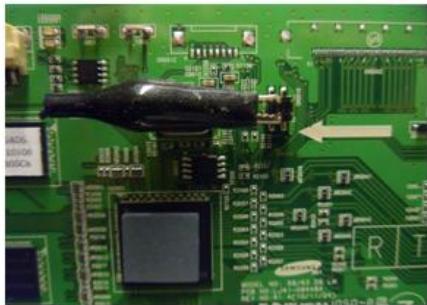
| Pin No. | Signal |
|---------|----------|
| 1 | Sync_In |
| 2 | Sync_Out |
| 3 | GND |
| 4 | B/T_DP |
| 5 | B/T_DM |
| 6 | A5V |
| 7 | FUNC_INT |

Troubleshooting

Activating Power & Logic Board Test Patterns without Main Board:

1. Remove Power Cord to Panel
2. Short Highest 2 Pin #s on Logic Board Test Jig (Can be 4 Pin or 6 Pin)

3. Remove Power Connector at Main Board (keeping connection to SMPS)
4. Short "Power On" Pin to Circuit Ground on Power Connector to SMPS.
5. Connect Power Cord to Panel



"VITAL SIGNS"

When troubleshooting, It's very important to first check **Vs, Va, Vsc & Ve**. If **Vs** is missing (0V), disconnect power and check for short. Use ohm meter to measure resistance while disconnecting Y-Board & X-Board supply feeds one at a time.

Turn Power On and Test SMPS with shorted connector removed for correct Vs voltage verification. (It may only come up briefly but to full level). Be careful not to reconnect power connectors until Vs falls below 10V.

If **Va** is low or missing, disconnect power connectors to Address Boards and Check to see if SMPS Supply is restored. (Note Va feed normally passes through the Y-Drive to the Address Boards (Logic Buffer Boards).

If **Vsc** is low or missing and Vs is OK, the failure is with the **Y-Board** since the Y-Board generates the Vsc voltage from the supplied Vs.

If **Ve** is low or missing and Vs is OK, the failure is with the **X-Board** since the Ve is generated by the X-Board from the supplied Vs. (Please note: In some rare cases the Ve is generated by the Y-Board fed to the X-Board.)

Other SMPS Voltages:

Check Low Voltage feeds to the Main Board and other supplied Assemblies.

Power Supply Trouble Shooting Notes:

2010/2011 models

Will not be run with the "X" or "Y" main disconnected. The SMPS will shut down immediately. However if a meter is first connected to the test point when power is applied it will read the correct voltage briefly before shutting down.(You have enough time to check key voltages)

CAUTION: Do not reconnect any connectors to SMPS or Y/X Boards until power has been turned off long enough for Vs to drop below 10V or damage will occur to X or Y Boards.

SMPS Over Current Protection

If a short circuit occurs on either the VS or VA voltage lines, the SMPS stops operating, but should not fail. When the short circuit is removed from the source line, the Power Supply will operate normally again.

Many SMPS Supplies are replaced needlessly!

TROUBLESHOOTING VIDEO PROBLEMS

1. Verify Video Operation

- a) Customer Picture Test (if available)
- b) "Display" (If display is OK source is suspected)
- c) Substitute with known good Source
(external DVD or Signal Generator)

2. Using Test Patterns in Service Mode

- ENTERING SERVICE MODE -

Customer Remote:

1. Power off
2. Mute, 182, Power

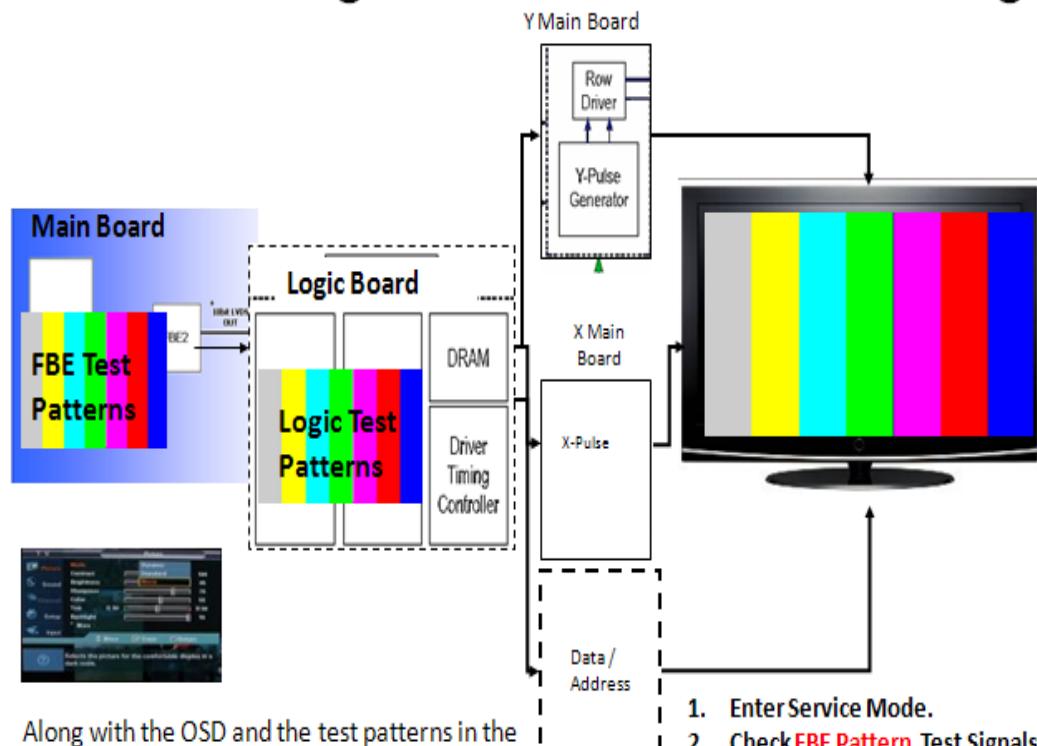
Service Remote:

1. Power On
2. Info, Factory

3. Determine cause

- a) If Logic pattern is NG; Logic board, Logic buffers or Panel are suspect.
- b) If FBE patterns is NG and Logic is OK; Main or LVDS cable are suspect.
- c) If both are OK it is likely a source issue.

2010 PDP Signal Path for Troubleshooting



Along with the OSD and the test patterns in the FBE2 IC on the Main board there are additional test patterns on the Logic board that can be accessed from the service mode.

1. Enter Service Mode.
2. Check **FBE Pattern** Test Signals. (Main Board)
3. Check **Logic Pattern** Test Signals. (Logic Board)



ALIGNMENTS & OPTION BYTES :

1. Check/Adj. VS, VA, VE, & VSC according to Panel Label and Diffusion test. (**see bulletins** for any special notes before making changes)

2. Check/Set Option Bytes:
- ENTER SERVICE MODE -
 - a) Customer Remote: Power off; Mute, 182, Power On
 - b) Service Remote: Power On; Info, Factory

DIFFUSION TEST/ADJ. (cell miss-firing, older units)

- Allow the unit to warm up 15 to 20 minutes
- Access the Burn Protect Sig. Pattern in User Menu.

- Adjust the Vs volts until screen errors are gone in both dark and bright areas.
- Adjust the Vs volts within +/- 10V on the panel label.



| Model Code | PN59D8000FFXZA | | | | | | |
|------------|----------------|--------|------------|--------------|----------|---------|-------------|
| Side Label | Option | | | | | | |
| | Type | Model | Tuner | Light Effect | Ch Table | Country | Front Color |
| I101 | 59DSCrD | PD8000 | SEC_Si2173 | OFF | | USA | P-W-VIO |
| I202 | 59DSCrD | PD8000 | SEC_Si2173 | OFF | | USA | P-W-VIO |
| Y503 | 59DSCrD | PD8000 | SEC_Si2173 | OFF | | USA | P-W-VIO |
| Y504 | 59DSCrD | PD8000 | SEC_Si2173 | OFF | | USA | P-W-VIO |